

CLAIMS

We claim:

- 1 1. A cleaner for eyewear, said cleaner comprising:
 - 2 a cleaning solution tank adapted to hold a cleaning solution;
 - 3 a motor connected to an agitator arm, said arm having a raised position and a lowered
 - 4 position;
 - 5 a clip for holding an eyewear, said clip being detachably attached to said agitator arm;
 - 6 wherein
 - 7 said motor is selectively operated to agitate said agitator arm;
 - 8 said clip can be selectively lowered by said agitator arm towards said solution tank, such
 - 9 that when said agitator arm is in the lowered position, the eyewear, held by the clip, can be
 - 10 selectively agitated in said solution tank; and
 - 11 said clip can be selectively raised by said agitator arm away from the cleaning solution
 - 12 tank and the eyewear can be shaken substantially dry with said agitation arm in the raised
 - 13 position
- 1 2. The cleaner of claim 1, further comprising:
 - 2 a timer to time a cleaning cycle and a drying cycle, said drying cycle following the
 - 3 cleaning cycle; wherein:
 - 4 the motor is selectively turned on at the beginning of the cleaning cycle;
 - 5 the agitator arm moving to the raised position and raises the eyewear out of the solution
 - 6 at the end of the cleaning cycle; and
 - 7 the motor is selectively turned off at the end of the drying cycle.

1 3. The cleaner of claim 1, wherein the clip is detachably attached to said agitator arm by
2 magnetic means.

1 4. The cleaner of claim 1, wherein the clip has rubber grips for detachably holding a pair of
2 glasses.

1 5. The cleaner of claim 1, in combination with a cleaning solution, wherein the cleaning
2 solution comprises water, a surfactant, a biocide, a disinfectant, a lipophilic surface active agent,
3 and an anti-fogging agent.

1 6. The motorized cleaner of claim 5, wherein the cleaning solution further comprises a
2 coloring dye.

1 7. The motorized cleaner of claim 1, wherein the cleaning solution further comprises a
2 perfume.

1 8. The cleaner of claim 1, wherein the solution tank is removable from the motorized
2 cleaner.

1 9. The cleaner of claim 8, further comprising a detachable lid for the removable tank.

1 10. The cleaner of claim 1, in combination with the cleaning solution, wherein the cleaning
2 solution can deposit a film of silicone on the eyewear.

1 11. The motorized cleaner of claim 10, wherein the film of silicon fills in micro-scratches on
2 the eyewear.

1 12. The cleaner of claim 1, wherein the detachable clip has a finger grip area.

1 13. The cleaner of claim 1, further comprising a lid that pivotally opens.

1 14. The cleaner of claim 2, further comprising a lid that pivotally opens.

1 15. The cleaner of claim 13, wherein the lid automatically opens at the end of the cleaning
2 cycle.

1 16. The cleaner of claim 14, wherein the lid automatically opens at the end of the cleaning
2 cycle.

1 17. The cleaner of claim 1, further comprising at least one LED or LCD.

1 18. The cleaner of claim 2, further comprising at least one LED or LCD.

1 19. The cleaner of claim 17, wherein said at least one LED or LCD is positioned behind the
2 solution tank.

1 20. The cleaner of claim 18, wherein said at least one LED or LCD is positioned behind the
2 solution tank.

1 21. The cleaner of claim 17, wherein the cleaner case is made of a translucent material.

1 22. The cleaner of claim 18, wherein the cleaner case is made of a translucent material.

1 23. The cleaner of claim 17, wherein said at least one LED or LCD is selectively turned on to
2 create a light display.

1 24. The cleaner of claim 18, wherein said at least one LED or LCD is selectively turned on to
2 create a light display.

1 25. The cleaner of claim 1, wherein said motor agitates said agitator arm by means of
2 vibrations.

1 26. The cleaner of claim 25, wherein said vibrations are caused by weights eccentrically
2 mounted to a rotating axis of the motor.

1 27. The cleaner of claim 15, wherein the lid raises the agitator arm.

1 28. A method for cleaning eyewear, comprising the steps of:
2 attaching the eyewear to an agitator arm and selectively lowering said agitator arm into a
3 tank containing a cleaning solution;
4 selectively operating a motor to agitate said agitator arm and the eyewear in said solution;
5 selectively raising said agitator arm to raise said eyewear out of the tank, and said agitator
6 arm shaking said eyewear substantially dry.

1 29. The method of claim 28, wherein the period from the time the motor is turned on to the
2 time the eyewear becomes substantially dry is about one minute.

1 30. The method of claim 28, further comprising the step of:

2 polishing the lens of the eyewear with a micro-fiber cloth after the eyewear is
3 substantially dry.

1 31. A method of cleaning eyewear with a motorized cleaner, comprising the steps of:
2 clipping the eyewear to a detachable clip;
3 attaching the clip to an agitator arm of the motorized cleaner;
4 lowering the agitator arm to lower the eyewear into a solution tank, said solution tank
5 containing a cleaning solution;
6 operating the motorized cleaner to turn on a motor, said motor agitating said agitator arm
7 and the attached eyewear in the cleaning solution;
8 the motorized cleaner automatically raising the eyewear out of the solution and agitates
9 the eyewear to substantially dry it;
10 the motorized cleaner automatically turning off the motor;
11 removing the detachable clip from the agitator arm and removing the eyewear from the
12 clip.

1 32. A cleaner for eyewear, said cleaner comprising:
2 a solution tank adapted to hold a cleaning solution,
3 a motor connected to an agitator arm,
4 a clip that can selectively hold an eyewear, said clip being detachably attached to said
5 agitator arm; wherein
6 said motor is operated to agitate said agitator arm;
7 said eyewear is lowered by said agitator arm into said cleaning solution in said solution
8 tank;
9 the eyewear being agitated in said solution; and

10 said eyewear is raised by said agitator arm out of the cleaning solution and shaken
11 substantially dry.

1 33. A cleaner for eyewear, said cleaner comprising:
2 a solution tank adapted hold a cleaning solution,
3 a motor connected to an agitator arm,
4 a clip that can selectively hold an eyewear, said clip being detachably attached by magnet
5 to said agitator arm; wherein
6 said motor is operated to agitate said agitator arm;
7 said eyewear is lowered by said agitator arm into said cleaning solution in said solution
8 tank;
9 the eyewear being agitated in said solution; and
10 said eyewear is raised by said agitator arm out of the cleaning solution and shaken
11 substantially dry.

1 34. A cleaner for eyewear, said cleaner comprising:
2 a solution tank adapted to hold a cleaning solution, said tank being removably attached to
3 said cleaner;
4 a motor connected to an agitator arm,
5 a clip that can selectively hold an eyewear, said clip being detachably attached to said
6 agitator arm; wherein
7 said motor is operated to agitate said agitator arm;
8 said eyewear is lowered by said agitator arm into said cleaning solution in said solution
9 tank;
10 the eyewear being agitated in said solution; and

11 said eyewear is raised by said agitator arm out of the cleaning solution and shaken
12 substantially dry.

1 35. A method for cleaning eyewear using an eyewear cleaner comprising the steps of:
2 lowering the eyewear into a cleaning solution;
3 operating a motor to agitate the eyewear in the cleaning solution;
4 raising the eyewear out of the cleaning solution; and
5 shaking the eyewear dry.

1 36. The method of claim 35 further comprising:
2 performing the shaking step above the cleaning solution.

1 37. The method of claim 35 wherein the lowering step is accomplished manually and the
2 raising step is accomplished automatically following the operating step.

1 38. The method of claim 35 comprising:
2 attaching the eyewear to a removable clip; and
3 securing the clip to an agitation arm prior to the lowering step.

1 39. The method of claim 38 further comprising:
2 the securing step includes magnetically securing the clip to an agitation arm.

1 40. A cleaner for eyewear comprising:
2 a cleaning solution tank that can selectively hold a cleaning solution;
3 an agitation arm;
4 a removable clip adapted to hold eyewear, said removable clip can be selectively attached
5 to the agitation arm such that the agitation arm can selectively agitate the eyewear in the tank.

1 41. The cleaner of claim 40 including:
2 said agitation arm and said clip can be selectively and magnetically attached together.

1 42. A cleaner for eyewear comprising:

2 a cleaning solution tank that can selectively hold a cleaning solution;
3 a device that can selectively cleaning eyewear in the solution tank;
4 a light source that can direct light into said cleaning tank as said eyewear are being
5 cleaned.

1 43. The cleaner of claim 42 wherein said light source is selected from the group consisting of
2 an LED and an LCD.

1 44. A cleaning solution for cleaning eyewear comprising:
2 a surfactant;
3 an anti-microbial agent;
4 a dehydrating agent;
5 an emulsion stabilizing agent; and
6 an anti-fogging agent.

1 45. The cleaning solution of claim 44, further including a reaction of ethylene oxide and
2 ammonia.

1 46. The cleaning solution of claim 44 wherein:
2 said surfactant is Berol 226;.

1 47. The cleaning solution of claim 44 wherein:
2 said anti-fogging agent is polydimethylsiloxane.

1 48. The cleaning solution of claim 44 wherein:
2 said anti-microbial agent is sodium hydroxymethylglycinate.

1 49. The cleaning solution of claim 44 wherein:
2 said dehydrating agent is an alcohol.

1 50. The cleaning solution of claim 44 wherein:

2 said emulsion stabilizing agent is sorbitan mono-oleate.

1 51. The cleaning solution of claim 44 wherein said anti-fogging agent is silicone based and is
2 adapted to fill in scratches on the eyewear.

1 52. A cleaner for eyewear comprising:
2 a base;
3 a cleaning solution tank that is adapted to hold a cleaning solution;
4 said cleaning solution tank is selectively removable from said base;
5 an eyewear holding mechanism that is adapted selectively hold eyewear; and
6 an eyewear agitation mechanism that is adapted to selectively agitate eyewear in the
7 cleaning solution tank.

1 53. The cleaner of claim 48 including a cap for the removable cleaning solution tank.

1 54. A cleaning solution for cleaning eyewear comprising:
2 a surfactant;
3 a dehydrating agent;
4 an anti-fogging agent.

1 55. The cleaning solution of claims 54 wherein:
2 said dehydrating agent is an alcohol;
3 said anti-fogging agent is polydimethylsiloxane emulsion.

1 56. The cleaning solution of claim 54 wherein said anti-fogging agent is silicone based and is
2 adapted to fill in scratches on the eyewear.